
Working with Scalable Vector Graphics
Adobe


Welcome
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Agenda

- What is SVG ?
- SVG File Example
- SVG Capabilities
- SVG Demo

SVG – Scalable Vector Graphics

- Open Source
  - XML based (Integration HTML, CSS, DOM, JS, XSL, CGI)
  - W3C Recommendation (www.w3.org)
- Advantages with the SVG file format
  - Design (complex layouts with well known tools)
  - Dynamic content - higher level of interactivity
  - Compact - Faster downloads
  - Productive searching (SVG is ASCII text)
  - Web color management
  - High quality print

http://www.adobe.com/svg

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SVG – Example

ASCII Code based on standard XML

```
<?xml version="1.0"?>
<!DOCTYPE svg PUBLIC "-//W3C//DTD SVG 20000802//EN"
"http://www.w3.org/TR/2000/CR-SVG-20000802/DTD/svg-20000802.dtd">
<svg width="100%" height="100%">
<desc>Example 1 – One rectangle</desc>
<rect x="0.75cm" y="0.5cm" width="2.5cm" height="3cm"
style="fill:purple; stroke:gray; stroke-width:0.1cm" />
</svg>
```

Visual:

SVG Capabilities

- Vector Graphic Properties
  - Text
  - Fill
  - Stroke
  - Gradient
- Raster-like Graphic Properties
  - Filters (Still vector, but gives a raster look)
    - Drop Shadows
    - Glows
    - Bevel
    - Distort
  - JPEG, GIF, and PNG support

SVG Capabilities (continued)

- Dynamic Possibilities
  - Declarative Animation (tag-based)
  - JavaScript Animation
  - JavaScript Event Handling (works w/ HTML)
  - Dynamic Generation (server/client-side)
- Building SVG's
  - Illustrator 9.0
  - Any Text Editor (Notepad, Simpletext, VI, etc.)
  - CGI Script or JavaScript Generation
  - GZIP compression


SVG Demo from USAirways
Adobe

SVG Smart Graphics

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Agenda

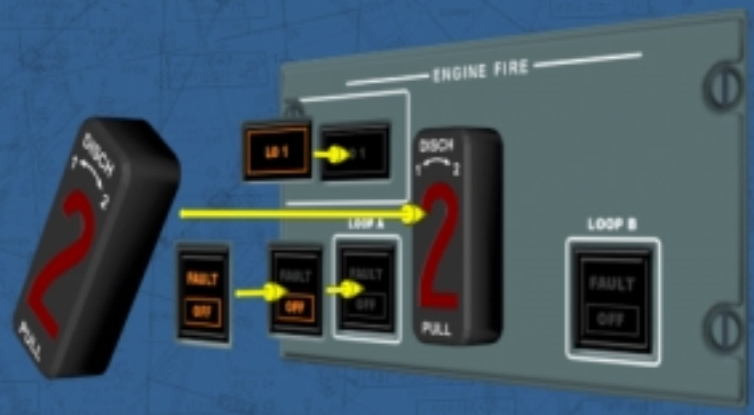
- What are Smart Graphics [SMG]
- Why SVG?
- Development Overview
- Results
- Prototype Demonstration

What are Smart Graphics [SMG]?

- Reusable, interoperable components that can be placed in CBT or Emulation
- Created to enable rapid CBT or simulation development
- Ideally provided by manufacturers

What are Smart Graphics [SMG]?

- A group of graphical objects compiled into a single configurable object
- Logic can be added for simulation or “on-the-fly” configuration



Why Use SVG?

- Very “light-weight” components
- Easily scaleable within the development environment
- Provides wide range of languages to develop with
- Easy to create and implement
- Open Source

Development Requirements

- Needed to be created with “off the shelf” software
- Components should be independent of each other and of the logic
- Scalable in size
- Easy to create
- Reusable

Development Process

- Adobe Illustrator was used to create graphical objects
- JavaScript was to be used to develop logic components
- Editing of HTML, XML and JavaScript was done using NotePad

Results

- Logic was built independent of panel
- Emulation logic was specific to object
- Objects are configurable as either “freeplay” environments or static objects representing a predetermined state

Future Implementations

- Web-based CBT
- Desktop CBT
- Dynamic Training Modules
- Interactive Electronic Manuals